

EUKHTIRAROV, A. G.

Eukhtirarov, A. G. "The introduction of 'centrally active'", In the collection: Mekhanizm patol. reaktsiy, Issues 11-15, Leningrad, 1949, p. 123-29, - Bibliog: 9 items.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

BUKHTIYAROV, A. G.

Bukhtiyarov, A. G. "The introduction of 'periferal vascular-contractive' stimulants into the arteries and veins of the 'great circle'", In the collection: Mekhanizm patol. reaktsiy, Issues 11-15, Leningrad, 1949, p. 130-35, - Bibliog: 14 items.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

BUKHTIYAROV, A. G.

Bukhtiyarov, A. G. "The introduction of vascular-relaxing stimulants into the arteries and veins of the 'great circle'", In the collection: Mekhanizm patol. reaktsiy, Issues 11-15, Leningrad, 1949, p. 136-44, - Bibliog: p. 143-44.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

BUKHTIYAROV, A. G.

Bukhtiyarov, A. G. "Arterial and venous introduction of stimulants into the vessels of the portal system", In the collection: Mekhanizm patol. reaktsiy, Issues 11-15, Leningrad, 1949, p. 145-49, - Bibliog: 8 items.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

BUKHTIYAROV, A. G.

Bukhtiyarov, A. G. "Arterial and venous introduction of stimulants into the vessels of the 'small circle'", In the collection: Mekhanizm patol. reaktsiy, Issues 11-15, Leningrad, 1949, p. 150-54.

SO: U-4392, 19 August 53 (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

BUKHTIYAROV, A. G.

Bukhtiyarov, A. G. "Arterial introduction of stimulants and their indirect effect on the central nervous system", In the collection: Mekhanizm patol. reaktsiy, Issues 11-15, Leningrad, 1949, p. 155-60, - Bibliog: 6 items.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

BUKHITIYAROV, A. G.

"The Complex Prophylaxis and Therapy of Severe Oxygen Insufficiency," report presented at the 2nd All-Union Conference of Pathophysiologists, Kiev from 29 June to 5 July 1956.

Sum 1549, 14 Nov 1957

Name: BUKHTIYAROV, Aleksey Grigor'yevich

Dissertation: On the reactions of the organism to the introduction of stimulants into the blood

Degree: Doc Med Sci

Affiliation: [not indicated]

Defense Date, Place: 21 Jun 56, Council of the Naval Med Academy

Certification Date: 4 May 57

Source: BMVO 15/57



BUKHTIYAROV, A.G.

Role of reflex mechanisms in humoral effects of narcotics and anesthetics. Farm.i toks. 23 no.1:80-84 Ja-F '60. (MIRA 14:3)

1. Laboratoriya toksikologii i patofiziologii Moskovskogo nauchno-issledovatel'skogo instituta sanitarii i gigiyeny imeni V.V.Erismana.  
(NARCOTICS) (ANESTHETICS)

BUKHTIYAROV, D.

Sources of our successes. Pozh.delo 6 no.1:20-22 Ja '60.  
(MIRA 13:5)  
(Leningrad--Fire departments) (Communist education)

AUTHOR: Bukhtiyarov, L.Ye., Engineer SOV/96-58-6-12/24

TITLE: Raising the efficiency of power stations having open-circuit systems of fuel pulverisation by heating the primary air in calorifiers. (Povysheniye ekonomichnosti elektrostantsiy s razomknutoy sistemoy pyleprigotovleniye podogrevom dut'evogo vozdukha v kaloriferakh.)

PERIODICAL: Teploenergetika, 1958, No.6. pp. 61 - 63 (USSR)

ABSTRACT: In many power stations of the USSR that use the closed cycle fuel heating system, heat exchangers have been installed in the tail end of the furnace gas duct to reduce the outgoing gas temperature to 120 - 135°C. When open-circuit fuel pulverising systems are used there is less need to secure low outgoing flue gas temperatures, because the air heater is in a high-temperature zone where there is no risk of corrosion; also, the flue gases are used to dry the fuel and are finally discharged to atmosphere at a temperature of 70 - 80°C. However, the open-circuit system is favourable to pre-heating of the air. A small increase in the air-heater surface suffices if steam pre-heating is used; depending on the quality of the fuel and the load on the boiler, the gas temperature at the inlet to the shaft-type pulverising mills is regulated by by-passing part of the cold air round the air-heater. Finally, air pre-heating

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SOV/96-58-6-12/24  
Raising the efficiency of power stations having open-circuit systems of fuel pulverisation by heating the primary air in calorifiers.

by steam does not increase the heat loss with the outgoing flue gases, since the gas temperature at the inlet to the pulverisers is determined by the need to dry the fuel and can be regulated by adjusting the degree of air-heating in the calorifier. Graphs of gas-and air-temperature and necessary excess-air factor as functions of the load on the boiler for various water contents of the fuel are given in fig.1. They refer to a boiler type TP-30, with open-circuit pulverising, burning Aleksandriyskiy brown coal. It is seen that full air-heating is used only at quite high loads, and is less when the load is lower, particularly if the fuel is wet. As much as 75 - 80% of cold air may be used in this boiler. At low loads the air temperature necessary to dry the fuel properly can only be maintained by using a considerable amount of excess air. Under such conditions, pre-heating of the air is advisable, and should be provided on new designs of boiler burning Aleksandriyskiy brown coal. Data relating to the flow of air and other characteristics of the air-heaters of a new high-pressure power station are given in fig.2. The most economical temperature to which to pre-heat the air by steam will vary from case to case; formulae to determine the best temperature are given. Data about the fuel economy that can be achieved in this way are tabulated, and range from 2.6 to 6.6%. Moreover, amortisation of the equipment takes

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Raising the efficiency of power stations having open-circuit systems of fuel pulverisation by heating the primary air in calorifiers.

only a matter of months. The air may be heated by steam tapped from the turbine, but other waste heat from the power station is suitable, particularly the heat of hot condensate returned by external heat consumers. The best results are obtained when burning brown coal of variable characteristics in high-pressure steam plant. There is 1 table, 2 figures and 4 literature references (Soviet).

ASSOCIATION: Ukgiproshakht (Ukrainian Mining Design Institute)

1. Power plants--Effectiveness
2. Heat exchangers--Applications
3. Gases--Temperature
4. Fuels--Preparation

Card 3/3

BUKHTIYAROV, Nikolay Gavrilovich; LIPKIN, Il'ya Alekseyevich;  
SHUBINSKIY, Aleksandr Il'ich; LEBEDEV, A., tekhn. red.;

[Insurance and payment tables for the voluntary insurance of  
buildings] Tablitsy po ischisleniiu strakhovykh summ i pla-  
tezhei po dobrovol'nomu strakhovaniyu stroenii. Moskva, Gos-  
finizdat, 1961. 69 p. (MIRA 15:7)  
(Insurance, Property--Tables and ready reckoners)

MANZHOS, F.M., doktor tekhn.nauk; BUKHTIYAROV, V.P., inzh.

Efficient arrangement of revolving cutter blocks in planing  
machines. Der.prom. 8 no.1:9-13 Ja '59. (MIRA 12:1)  
(Planing machines)

BUKHTIYAROV, V. P., Cand Tech Sci -- (diss) "Investigation of the basic parameters for a technological scheme of versatile plano-milling machines for wood." /Moscow, 1960/. 19 pp with diagrams; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Forestry Engineering Inst); 125 copies; price not given; (KL, 25-60, 130)



BUKHTIYAROV, V.P., inzh.

Pressure clamping devices of four-sided planers. Der.  
prom. 9 no.5:9-11 My '60. (MIRA 13:7)

1. Moskovskiy lesotekhnicheskij institut.  
(Planing machines)

BUKHTIYAROV, V.P., inzh.

Automatic production lines for processing wood pieces at the  
Moscow Furniture Combine No.1. Der.prom. 9 no.6:8-11 Je '60.  
(MIRA 13:8)

(Moscow--Furniture industry) (Automatic control)

BUKHTIYAROV, V.P., kand.tekhn.nauk

Theoretical justification and experience in the automation of the  
processing of squared subassemblies. Der.prom. 11 no.1:9-11 Ja  
'62. (MIRA 15:1)  
(Woodwork) (Assembly-line methods)

BUKHTIYAROV, V.P., kand.tekhn.nauk

Reliability of the work of automatic lines. Der. prom. 11 no.8:6-8  
Ag '62. (MIRA 17:2)

1. Mauchno-issledovatel'skiy institut derevoobrabatyvayushchego ma-  
shinostroyeniya.

KORSHUNOV, B.G.; DROBOT, D.V.; PETROV, K.I.; BUKHTIYAROV, V.V.; RUBTSOV, M.V.

System  $\text{SmCl}_2$  ..  $\text{NaCl} - \text{KCl}$ . Zhur. neorg. khim. 10 no.7:  
1675-1680 j1 '65. (MIRA 18:8)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni  
M.V. Lomonosova.

KORSHUNOV, B.G.; DROBOT, D.V.; BUKHTIYAROV, V.V.; SHEVTSOVA, Z.N.

Interaction of samarium (III)chloride with the chlorides of  
sodium, potassium, rubidium, and cesium. Zhur. neorg. khim.  
9 no.6:1427-1430 Je '63 (MIRA 17:8)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni  
Lomonosova.

BUKHTYAROV, V. Ye.

Dissertation: "Use of the Chromatographic Method in the Analysis of Copper-Iron Ceramic Alloys and Bronze." Cand Chem Sci, Inst of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, Acad Sci USSR, 24 May 54. Vechernyaya Moskva, Moscow, 13 May 54.

SO: SUM 284, 26 Nov 1954

Published in J. Anal. Chem. (USSR), 7, 417-24, 1952.

*BUKHTYAROV V.E.*

USSR/Chemistry - Analytical

Card 1/1 : Pub. 145 - 3/14

Authors : Ryabchikov, D. I., and Bukhtyarov, V. E.

Title : Determination of beryllium in bronze through the application of a cationite

Periodical : Zhur. anal. khim. 9/4, 196-198, Jul-Aug 1954

Abstract : A method of determining Be in bronzes through the application of SBS type cationites is described. The new method is similar to the one used in determining Be in artificial mixtures in the presence of Al and Fe. Results obtained in determining Be in bronzes are tabulated. Three USSR references (1936-1952). Tables.

Institution : .....

Submitted : May 5, 1954



BUKH~~TI~~YAROV, V. Ye.

941. Determination of calcium in nickel-base alloys. V. E. Bukhtiyarov. *Zavod. Lab.*, 1956, 21 (9), 1042. The nickel alloy (0.5 g) is attacked with 25 ml of aqua regia, the excess of  $\text{HNO}_3$  is boiled off, 20 ml of 20 per cent. HCl solution are added, the cooled solution is mixed with 30 ml of water, and then filtered into a 500-ml calibrated flask, the residue being washed 3 or 4 times with water. Aq.  $\text{NH}_3$  is added until a ppt. appears, which is then dissolved with a few drops of 20 per cent. HCl solution; the liquid is treated with 25 ml of 10 per cent. ammonium benzoate solution and heated to boiling point. In the presence of large amounts of Cr, boiling is continued for 10 min. Sodium diethyldithiocarbamate solution (10 per cent.) (50 ml) is added to the cold solution, the vol. is made up to the mark and the solution is filtered. The filtrate (100 ml) is mixed with 30 ml of a buffer solution (80 g of  $\text{NH}_4\text{Cl}$  and 100 ml of 20 per cent. aq.  $\text{NH}_3$  in 1 litre), 8 ml of sodium diethyldithiocarbamate solution, 10 ml of aq.  $\text{NH}_3$  (concn. not stated), 5 drops of 0.02 M  $\text{K}_2\text{Cr}_2\text{O}_7$  and 7 or 8 drops of Eriochrome black T solution (prepared by dissolving 0.5 g in 10 ml of buffer solution and diluting with ethanol to 100 ml). The Ca is determined by titrating with 0.01N EDTA (disodium salt) solution to a green colour. Two further drops of the indicator solution are added before the end of the titration. A blank is carried out at the same time. The method has been tested over the range 0.03 to 0.5 per cent.

G. S. SMITH

RYABCHIKOV, D.I.; BUKHTIAROV, V.Ye.

Separation of titanium from tungsten by ion exchange chromatography.  
Zhur.anal.khim. 15 no.2:242 Mr-Apr '60. (MIRA 13:7)

1. Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo  
AN SSSR, Moskva.  
(Titanium--Analysis) (Tungsten--Analysis)

RYABCHIKOV, D.I.; BUKHTIAROV, V.Ye.

Use of ion-exchange chromatography for the determination of zirconium and hafnium when present together in alloys based on molybdenum. Zhur. anal. khim. 19 no.11:1411-1412 '64.  
(MIRA 18:2)

LAZAREV, P. S. FEDOROV, A. I. (Professors), BUKHTELOV, F. N., PAVLOV, P. I. (Docents, Troitsk Veterinary Institute), ZaslonoV, M. S. (Director of the Troitsk Intersovkhoz Veterinary Bacteriological Laboratory) and PLEKHANOV, B. P. (Head Veterinary Doctor of the Bredinsk District, Chelyabinsk Oblast')

"Certain characteristics of the course taken by rabies in cattle"

Veterinariya, vol. 39, no. 9, September 62, p. 20

LAZAREV, P.S., prof.; FEDOROV, A.I., prof.; BUKHTILOV, F.E., prepodavatel';  
KAMNIN, I.N., prepodavatel'; KONDAKOV, A.P., aspirant; AMELIN, I.P.;  
ZAYNIKAYEV, M.Sh., veterinarnyy vrach

Malignant course of foot-and-mouth disease. Veterinariia 41 no.5:  
39-42 My '64. (MIRA 18:3)

1. Troitskiy veterinarnyy institut (for Lazarev, Fedorov, Bukhtilov,  
Kamnin, Kondakov). 2. Nachal'nik Chelyabinskogo oblasti nogo veteri-  
narnogo otdela (for Amelin).

BUKHTIN, V.S., inzh.; BOGOMOLOV, M.S., inzh.; NOBONTOV, A.A., inzh.;  
BORISOV, I.F., inzh.

Determining the level of mechanization, automation, and labor  
consumption for individual ore mining processes. Izv. vys. shk. ob.  
zav.; gor. zhur. 7 no.10:44-50 '64. (MIRA 18:1)

1. Vostochnyy nauchno-issledovatel'skiy gornorudnyy institut.

BUKHTIN, V.S., inzh.; BOGOMOLOV, M.S., inzh.; MAMONTOV, A.A., inzh.

Ways of improving repair operations at Gornaya Shoriya mines.

Gor. zhur. no.11:48-50 N '64.

(MIRA 18:2)

1. VostNIQRI, Novokuznetsk.

KOLESNIKOV, S.A.; BUKHTIYAROV, A.G.

Results of the experimental testing of the Research Institute for  
Experimental Surgical Apparatus and Instruments and Melrose  
apparatus for artificial blood circulation. Trudy NIIRKHSI no.5:  
125-131 '61. (MIRA 15:8)

1. Iz Instituta grudnoy khirurgii AMN SSSR.  
(PERFUSION PUMP (HEART))



BUKHTIYAROV, A.G.; RUSSKIKH, V.V.; SHCHELKANOVITSEVA, N.I.

Changes in the higher nervous activity, in certain other functions, and in the brain structure of animals under the influence of potassium and calcium salts. Uch.zap.Mosk.nauch.-issl.inst. san i gig. no.3:53-59'60. (MIRA 16:7)

(CONDITIONED RESPONSE) (POTASSIUM SALTS—PHYSIOLOGICAL EFFECT)  
(CALCIUM SALTS—PHYSIOLOGICAL EFFECT) (BRAIN)

BUKHTIYAROV, A.G.

Reaction of the organism to chronic small threshold quantities  
of poison and methods for studying these reactions. Uch.zap.  
Mosk.nauch.-issl.inst.san.i gig. no.3:3-16'60. (MIRA 16:7)  
(POISONS—PHYSIOLOGICAL EFFECT)

BUKHTIYAROV, A.I., aspirant; KINDYAKOV, V.I., kand. vete nauk, nauchnyy  
rukovoditel' raboty

Experimental foot-and-mouth disease in roe deer. Veterinariya  
42 no.9:41-43 S '65. (FIR 1833)

1. Kazakhskiy nauchno-issledovatel'skiy veterinarnyy institut.

L 24687-66 EWT(1)/T JK

ACC NR: AP6015817 (A, N) SOURCE CODE: UR/0346/65/000/009/0041/0043

AUTHOR: Bukhtyarov, A. I. (Aspirant); Kindyakov, V. I. (Scientific instructor; Candidate of veterinary sciences) 30  
13

ORG: Kazakh Scientific Research Veterinary Institute (Kazakhskiy nauchno-issledovatel'skiy veterinarnyy institut)

TITLE: Experimental foot-and-mouth disease<sup>b</sup> in roe deer

SOURCE: Veterinariya, no. 9, 1965, 41-43

TOPIC TAGS: foot and mouth disease, commercial animal, epidemiology, virus disease, virus

ABSTRACT: In view of the increasing number of reports on the role of wild animals in the rise and spread of foot-and-mouth disease among the livestock, the authors investigated the course and spread of this disease in six roe deer 1.5 years old each, kept in special metal cages and infected with the aphthous virus of this disease. Natural infection was accomplished by placing healthy animals in the cages with the artificially infected animals. Findings: following the first 24 hours, the animals displayed a depressed state, low mobility, low appetite, higher body temperature, increase in respiratory and pulse rates, with subsequent, increasing salivation and formation of aphthae on the mucous membrane of the upper and lower lips and in the nostrils; this state deteriorated until, beginning with the 4th day of infection, the animals started to die. Those animals that survived regained their appetite on the

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UDC: 619:616.988.43:599.735.3

L 24687-66

ACC NR: AP6015817

8th day and recovered toward the 11th day. With the object of determining the possibility of the natural infection of livestock by wild animals, castrated bulls were placed in the cages with the artificially infected deer. The bulls caught the infection toward the 5th-7th day. The course of the disease was typical, with the bulls recovering after two weeks. The authors conclude that roe deer are susceptible to both artificial and natural infection with types A and O virus of foot-and-mouth disease. On artificial intravaginal infection, aphthae appear on the mucous membrane of the lips rather than, as normally, in livestock, at the site of introduction of virus. The course of the disease was of below-normal severity, and its clinical picture and pathologoanatomic changes in the deer point to a toxicoseptic character of the disease. It appears that, owing to their ecological features, wild animals are much more rarely in contact with the foot-and-mouth virus than domestic animals, and this accounts for the violence of their reaction to administration of the virus. Orig. art.

has: 1 figure. [JPRS]

SUB CODE: 06, 02 / SUBM DATE: none

Card 2/2 FW

BUKHTIYAROV, Aleksey Mikhaylovich; ZIKEVSKAYA, Lidiya Mikhaylovna;  
FROLOV, Gennadiy Dmitriyevich; KRITITSKIY, N.A., red.;  
GORYACHAYA, M.M., red.

[Collection of problems in programming with answers and  
solutions] Sbornik zadach po programmirovaniyu s otvetami  
i resheniyami. Moskva, Nauka, 1965. 410 p.

(MIRA 18:11)

ZATSEPIN, K.S.; BUKHTIYAROV, N.T.

Pipelines of glass-reinforced plastic for transporting gas,  
petroleum, and petroleum products. Stroi.truboprov. 9 no.2:  
9-12 F '64. (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po stroitel'stvu  
magistral'nykh truboprovodov.

GIL'MAN, T.P.; ZATSEPIN, K.A.; 1966 13:9; STANTINOV, N.T.

Device for studying the kinetics of wetting of glass fillers  
with binders. Plast. massy, 1966, 13:9. (MIRA 13:9)



BUKHETIYAROV, Viktor Pavlovich, kand. tekhn.nauk; ZARODZINSKIY, Z.K.,  
red.; GOSPODARSKAYA, T.N., red. izdpva; VDOVINA, V.M.,  
tekhn. red.

[Automation of the processing of dimension stock by plan-  
ing] Avtomatizatsiya obrabotki bruskovykh zagotovok stro-  
ganiem. Moskva, Goslesbumizdat, 1963. 95 p.

(MIRA 16:7)

(Automation) (Planing machines)

BUKHTIAROV, V.I., head. of the work

Modern equipment for polishing panel parts of furniture. Der.  
prom. 14 no.5:14-15 My '65. (MIRA 18:6)

MATVEYEV, K.I.; OSIPOV, A.M.; ODYAKOV, V.F.; SUZDAL'NITSKAYA, Yu.V.;  
BUKHTOYAROV, I.A.; YEMEL'YANOVA, O.A.

Catalytic oxidation of ethylene in the presence of aqueous  
solutions of palladium salts. Kin.i kat. 3 no.5:661-673 S-0  
'62. (MIRA 16:1)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR.  
(Ethylene) (Oxidation) (Palladium salts)

BUKHTOYAROV, M.

BUKHTOYAROV, M.

Packing rear borders of dump trucks. Avt.transp. 35 no.2:16 F '57.  
(MIRA 10:12)

(Dump trucks)

ROMENSKIY, L.P., kand.tekhn.nauk; SPIRIDONOV, V.I., inzh.; MARIN, A.A., inzh.  
BUKHTOYAROV, N.G., inzh.

Using flexible cables in mines. Bezop.truda v prom. 5:4-5  
Jl '61. (MIRA 14:6)

1. Voroshilovskiy gornometallurgicheskiy institut.  
(Electric cables)

EXCERPTA MEDICA Sec 16 Vol 7/12 Cancer Dec 59

5023. **Tumour development in rats after intraperitoneal injection of nitric acid plutonium (Russian text)** BUKHTOYAROVA Z. M. and LEMBERG V. K. Med. Acad. of Sci., Moscow *Vopr. Onkol.* 1959, 5:8 (140-148) Graphs 2 Tables 3 Illus. 4  
Osteogenic sarcomas and various soft tissue tumours were provoked in rats after a single intraperitoneal injection of nitric acid plutonium in the amounts of  $6.3 \times 10^{-2}$   $\mu\text{C./g.}$ ,  $4.0 \times 10^{-2}$ ,  $1.89 \times 10^{-2}$ ,  $0.63 \times 10^{-2}$ , and  $0.315 \times 10^{-2}$   $\mu\text{C./g.}$  of body weight. The first two doses resulted in leucopenia and caused early death. Most tumours and most varied tumours were induced with the dose of  $1.89 \times 10^{-2}$   $\mu\text{C./g.}$ . The osteogenic sarcomas were characterized by their polymorphism and multicentric origin; in the controls no osteogenic sarcomas were seen. Soft tissue tumours were also found in control animals, but in the experimental animals they were less differentiated and of more varied type. (XVI, 5, 14)

28244

S/581/61/000/000/015/020  
D299/D304

27-1220

AUTHORS: Lemberg, V.K., Bukhtoyarova, Z.M. and Nifatov, A.P.

TITLE: The distribution of plutonium in the liver according to the results of histoautoradiography

SOURCE: Lebedinskiy, A.V. and Moskalev, Yu.I., eds. Biologicheskoye deystviye radiatsii i voprosy raspredeleniya radioaktivnykh izotopov; sbornik rabot. Moscow, Gosatomizdat, 1961, 136-144

TEXT: Due to the absence of suitable published data on the subject, the authors set out to study the course of the micro-distribution of plutonium-239 in the liver and bones by the histoautoradiographic method, i.e., by studying histological slides fixed on a photographic emulsion. The tests were run on white rats, plutonium-239 being introduced intraabdominally as  $\text{Pu}(\text{NO}_3)_4$  in a single dose of  $7 \mu\text{c/kg}$  at  $\text{pH} = 2$ . After 6 and 12 hours, and 1, 3, 7, 14, 28, 41, 56, 88 and 225 days the rats were decapitated and slides of the

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The distribution of plutonium...

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bone and liver tissues prepared. A detailed analysis of the photos showing the tracks of plutonium alpha-particles at various stages after the introduction of plutonium-239 is given and the results of the experiments are compared with various findings in the specialized literature on this subject. The histoautocardiograms showed a definite redistribution of plutonium in the structural elements of the bones and liver. Within 6-12 hours after its introduction diffuse distribution of plutonium in all structural parts of the liver is noted. Subsequently, from 1-225 days, the plutonium content in the hepatic cells decreases and begins to accumulate in the Kupffer's cells and the macrophages of the perivascular connective tissue. Six to 12 hours after its introduction the bones contain only a small amount of diffusely distributed plutonium (bone marrow, compact substance and diploë). By the end of the 3rd day a marked increase was noted in the plutonium content of the bone marrow. At subsequent stages the plutonium content in the bone marrow gradually diminished, but increased in the endosteum and periosteum. Some plutonium, however, was retained in the compact bone throughout the

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The distribution of plutonium...

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whole period of the investigation. There are 6 figures and 17 references: 6 Soviet-bloc and 11 non-Soviet-bloc. The 4 most recent references to English-language publications read as follows: J.S. Arnold cited by L.F. Lamerton "Proceedings of the Second United Nations International Conference of the Peaceful Uses of Atomic Energy", vol. 22, p. 119. Geneva, 1958; M.P. Finkel, Proceedings of the Society for Experimental Biology and Medicine, 83, 3, 494 (1953); M. Heller, Ch. 5 - "Bones" in the book by W. Bloom. Histopathology of Irradiation from External and Internal Sources, 70-161. N.Y. - Tor. - Lnd., 1948; R.J. Schubert, M. Finkel, M. White a. G. Hirsch, J. Biolog. Chem., 182, 2, 635 (1950).

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27.12.20

28246  
S/581/61/000/000/017/020  
D299/D304

AUTHOR: Bukhtoyarova, Z.M.

TITLE: The course of bone tissue lesions in rabbits contaminated with plutonium-239

SOURCE: Lebedinskiy, A.V. and Moskalev, Yu.I., eds. Biologicheskoye deystviye radiatsii i voprosy raspredeleniya radioaktivnykh izotopov; sbornik rabot. Moscow, Gosatomizdat, 1961, 155-163

TEXT: Most experimental research on the osteocarcinogenic effects of plutonium-239 has been carried out on rats, animals which grow for the greater part of their life span. The present work set out to study the effects of incorporated plutonium on the bone tissue of rabbits, the normal growth of whose skeleton ceases by the end of the animal's first year of life. Plutonium was injected into 6-8-month-old rabbits intravenously as  $\text{Pu}(\text{NO}_3)_4$  in single doses of 21, 14, 7 and  $2 \mu\text{c/kg}$ . Some rabbits were killed off after 15 days,

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The course of bone tissue lesions...

28246  
S/581/61/000/000/017/020  
D299/D304

1, 3, 6, 7 and 12 months. The rest were spared to determine their life duration and the rate of osteosarcomogenesis at later stages. Doses of 21, 14 and 7  $\mu\text{c/kg}$  greatly reduced the animals' life span and induced marked lesions of the peripheral blood and a pronounced drop in body weight. A drop in the leukocyte count was noted after 5-15 days and was not restored to normal in the rest of the animals' life span. The dose of 2  $\mu\text{c/kg}$  caused no substantial lesions of the peripheral blood but somewhat reduced the animals' life span. In animals killed 15-30 days after a dose of 7  $\mu\text{c/kg}$  thickened atypical beams were noted in the epiphysometaphysical area of the hipbone; the distribution of these deep into the diaphysis was much greater than in the control animals. By the 3rd month the number of mitoses in the lamellar cells and the osteoblast count both showed a marked drop, whereas the osteoclast count had risen sharply. Varying degrees of aplasia of the bone marrow and replacement of bone marrow cells by fibrous tissue was noted in all animals killed from the 15th day onwards. Despite the predominance of resorption processes (osteolysis), bone neoplasms (often atypical)

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The course of bone tissue lesions...

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were noted in some rabbits. About 50% of the rabbits which received  $2\mu\text{c/kg}$  developed bone tumors; these animals mostly died at the age of 1 year. The tumors were identified as osteogenic sarcomata, mainly of the osteoplastic type. The destruction of the bone tissue in rabbits which received 7, 14 and  $21\mu\text{c/kg}$  far exceeded normal bone changes due to age. These lesions corresponded to the pathological picture of typical acute and subacute radiation sickness from isotopes of the osteotropic group. Comparison of the reactions of rabbits and rats at 7 and  $2\mu\text{c/kg}$  showed that the former are more sensitive to the action of plutonium. Both doses reduced the rabbits' life more than that of the rats. The  $2\mu\text{c/kg}$  dose induced osteosarcomata in 50% of the rabbits, while a dose of  $1.89\mu\text{c/kg}$  induced tumors in only 30% of the rats. There are 4 figures, 2 tables and 21 references: 10 Soviet-bloc and 11 non-Soviet-bloc. The 4 most recent references to English-language publications read as follows: W.G. Cahan, H.Q. Woodward cited by L.F. Lamerton. Proc. of the Second United Nations International Conference of the Peaceful Uses of Atomic Energy, Geneva, 1-13 Sept., 1958, vol. 22, Biol-

Card 5/4

The course of bone tissue lesions...

28246  
S/581/61/000/000/017/020  
D299/D304

ogical Effects of Radiation, p. 119; M.P. Finkel, Proc. Soc. Ex-  
perim. Biol. Med., 83, 3, 494 (1953); M. Heller, Ch. 5 - "Bones",  
in the book by W. Bloom, Histopathology of Irradiation from Exter-  
nal and Internal Sources, N.Y., 1948; S. Koletsky and G.E. Gustaf-  
son, Cancer Research, 15, 2, 100 (1955).

*J*

Card 4/4

44063

27.1220

S/742/62/000/000/005/021  
I015/I215

AUTHORS: Lemberg, V.K., Bukhtoyarova, Z.M.

TITLE: Histoautoradiographic data on the distribution of plutonium in the bones of rats and rabbits

SOURCE: Plutoni-239; raspredeleniye, biologicheskoye deystviye, uskoreniye vyvedeniya. Ed. by A.V. Lebedinskiy and Yu.I. Moskalev. Moscow, Medgiz, 1962, 32-40

TEXT: The microlocalization of Pu<sup>239</sup> in the bones has been insufficiently studied. Experiments were carried out on 44 albino rats weighing 160-200 g and 35 rabbits weighing 2.5-3.5 kg. A single dose of plutonium-239 nitrate (7  $\mu$ Ci/kg of the radioisotope) was administered i.p. to the rats and i.v. to the rabbits. The rats were

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S/742/62/000/000/005/021  
I015/I215

Histoautoradiographic data...

decapitated 6 and 12 hours, 1,3,7,14 days and 1,1½,2,3, and 7½ months after the injection; the rabbits were sacrificed by air embolism 1, 3,7,14 days and 1,3,4,5 and 6 months after the injection. The bones were decalcified and sectioned for historadiocutographs. The decalcification was carried out with Ebner's fluid, which causes only a minimal loss of Pu. Histoautoradiography was performed according to Evans and Ye.V. Erleksova. The exposure time was 4 and 8 weeks. The sections were stained with Weigert's hematoxylin. It was found that plutonium nitrate was retained in the bones mainly in the endosteum, periosteum and bone marrow and to a lesser extent in other bone trabecules. The distribution of plutonium in bone tissue differed according to the animals species: the maximal Pu content in the bone marrow of rabbits was noticed 7 days - 4½ months after injection; in rats

Card 2/3

S/742/62/000/000/005/021  
I015/I215

Histoautoradiographic data...

the maximum was reached on the 3rd day, after which a gradual decrease was observed. In the rabbits, unlike the rats, a marked concentration of Pu in the RES cells of the bone marrow was observed. The affinity of Pu to the endosteum and periosteum, however, was equally marked in both the rats and rabbits, but it reached a constant level on the 3rd-7th day in the rats, whereas its concentration increased steadily till the 6th month in the rabbits. There are 7 figures.

X

Card 3/3



44077

S/742/62/000/000/019/021  
I015/I215

27.12.20

AUTHOR: Bukhtoyarova, Z.M.

TITLE: The effect of Pu<sup>239</sup> poisoning on bone tissue in rabbits

SOURCE: Plutoni-239; raspredeleniye, biologicheskoye deystviye, uskoreniye vyvedeniya. Ed. by A.V. Lebedinskiy and Yu.I. Moskalev. Moscow, Medgiz, 1962, 142-150

TEXT: Most of the studies on the effect of Pu injuries on bones were carried out on rats-animals the growth of which is continuous throughout the entire period of life. Experiments were carried out on 154 rabbits weighing 2.5 - 3.5 kg and aged 6-8 months. A single dose of 21, 14, 7 and 2  $\mu$ Ci/kg b.w. of Pu nitrate (pH = 2.0) was administered i.v. Fifty eight animals were sacrificed 0.5-12 months after

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I015/I215

The effect of Pu<sup>239</sup> poisoning. . .

the injection and the others were kept for the determination of the survival rate. The proximal epiphyses of the femur, tibia and humerus and the distal epiphyses of the femur and ribs (3rd-6th), and the vertebrae (X-XII) sternum and occiput were examined. The material was fixed in 10% formalin and decalcified with Ebner's fluid. The sections, after celloidin-paraffin embedding were stained with Ehrlich's hematoxylin-eosin. In acute and subacute radiation injuries (21,14 and 7  $\mu\text{Ci/kg}$ ) the main changes in bones are those of destruction and aplasia of bone marrow. Chronic injury (2  $\mu\text{Ci/kg}$ ) caused but slight destructive changes and the main picture was of bone neoplasms. Precancerous changes were detectable already on the 3rd month. Doses of 7 and 2  $\mu\text{Ci/kg}$  were bone-tumor-producing, whereby the smaller dose was the more potent (51.1% of the animals developed bone tumors after this dose). There are 7 figures and 3 tables.

Card 2/2

KHMEL', L.; BUKHVAL'D, L.

Occupational dermatomycoses in agriculture. Vest. dermat. i ven.  
no.2:8-14 '62. (MIRA 15:2)

1. Iz dermatologicheskoy kafedry (zav. - prof. L. Khmel') meditsinskogo fakul'teta imeni Komenskogo v Bratislave (Chekhoslovatskaya Sotsialisticheskaya Respublika).

(DERMATOMYCOSIS) (AGRICULTURE—HYGIENIC ASPECTS)

BUKHVALOV, A.M.

15

PHASE I BOOK EXPLOITATION

SOV/6352

Akademiya nauk SSSR. Vychislitel'nyy tsentr

Nomograficheskiy sbornik (Collected Papers on Nomography, no. 1.)  
Moscow, 1962. 248 p. 1800 copies printed.

Resp. Ed.: G. S. Khovanskiy, Candidate of Technical Sciences;  
I. A. Orlova; Tech. Ed.: A. I. Korkina.

PURPOSE: This collection of papers is intended for those engaged  
in research on and design of nomographs.

COVERAGE: This collection contains 27 papers concerning various  
aspects of the theory, construction, and use of nomograms for  
the solution of algebraic, functional, transcendental, and dif-  
ferential equations. No personalities are mentioned. There  
are 122 references: 102 Soviet (1 of which is a translation  
from the English), 8 German, 5 French, 2 English, 2 Spanish,  
2 Rumanian, and 1 Czech.

Card 1/10

5

Collected Papers on Nomography

SOV/6352

- XX. Bakhvalov, S. V., Moscow. Constructing Nomograms  
for Solutions of Differential Equations 180
- XXI. Kuz'min, Ye. N. Projective Equivalence of the  
Nomograms Obtained by Kellogg's Method for an  
Equation of the Third Nomographic Order. 188
- XXII. Kuz'min, Ye. N. Solution of the Problem of  
Anamorphosis for an Equation of the Third Nomo-  
graphic Order 192
- XXIII. Bukhvalov, A. M. Representations by Nomograms  
of Equations of Aligned Point of Zero Genus 205
- XXIV. Bukhvalov, A. M. Representation of the Empiri-  
cal Relationships Between Three Variables, Given  
in Tabular Form by Nomograms of Aligned Points  
of Zero Genus 212

Card 8/10

BUKHVALOV, A.M. (Minsk)

Nomographic representation of equations permitting of being  
represented by nomograms constructed from aligned points of zero  
genus. Nom. sbor. no.1:205-211 '62. (MIRA 16:5)  
(Nomography (Mathematics))

BUKHVALOV, A.M. (Minsk)

Nomographic representation of empirical relationships between three variables derived from tables and permitting of being represented by nomograms constructed from points of zero genus. Nom. sbor. no.1: 212-215 '62. (MIRA 16:5)

(Nomography (Mathematics))

BUKHVALOV, A.M.

Nomographic representation of equations of the first genus with  
three variables. Dokl. AN SSSR 148 no.5:1005-1008 F '63.  
(MIRA 16:3)

1. Belorusskiy politekhnicheskii institut. Predstavleno akademikom  
A.A.Dorodnitsyn.

(Differential equations) (Nomography (Mathematics))



BUKHVALOV, A.M. (Minsk)

Numerical method of determining the elements of nomographic representation of the form  $M_1 + M_2 = M_3$  for a given equation. Nem. zbor. no.2:153-164 '64.

Numerical method for determining the elements of the nomographic representation of the form  $M_1 + M_2 = M_3$  for functions given in tables. Ibid.:165-171 (MIRA 18:3)

BUKHVATOV, A.M. (Minsk)

One by one separation of variables in equations with several  
variables. Ncm. sbor. no.3:144-149 '65.

(MIRA 18:10)

L 3216-66 EWT(d) IJP(c)

ACCESSION NR: AP5009209

S/0020/65/161/001/0016/0018

AUTHOR: Bukhvalov, A. M. 16.14.85 10

TITLE: Elementary method of separating variables in equations with many variables

SOURCE: AN SSSR. Doklady, v. 161, no. 1, 1965, 16-18

TOPIC TAGS: variable, variable separation, nomographic computation

ABSTRACT: By separating the variables in the equation

$$F(u_1, \dots, u_n) = 0, n \geq 4 \quad (1)$$

we represent this equation in the equivalent form

$$F_1 = F_2 \quad (2)$$

where  $F_1 = F_1(u_\alpha, \dots, u_\delta)$ ,  $F_2 = F_2(u_\varepsilon, \dots, u_\lambda)$ , and  $\alpha, \dots, \delta, \varepsilon, \dots, \lambda$  are any values of the subscripts  $1, \dots, n$ . In other words, we reduce the equation to the system of equations

$$F_1 - s = 0, F_2 - s = 0 \quad (3)$$

where  $s$  is a new auxiliary variable. In practice the first step is to seek a solution with respect to any two variables  $u_\alpha$  and  $u_p$ , that is, to seek the corresponding functions  $\Theta_\alpha$  and  $\Theta_p$ , where  $\Theta$  is

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L 3216-66

ACCESSION NR: AP5009209

defined by the equation

$$u_1 = \Theta_1(u_1, \dots, u_{i-1}, u_{i+1}, \dots, u_n). \quad (4)$$

The next step is the choice of allowable substitutions  $u_p = u_{p_0}, \dots, u_\delta = u_{\delta_0}$ ,  $u_p = \Theta_p(u_1, \dots, u_{p-1}, u_{p+1}, \dots, u_n)$ ,  $p \neq \beta, \dots, \delta$  in the expression for  $\Theta_a$ . As a result, we get  $F_1$ , depending only on  $u_a, u_\beta, \dots, u_\delta$ . Separation of variables by this method is simplest in nomographically rational equations, that is, in the form of equation (1), the left side of which is a nomographic polynomial containing only one function of each variable. Orig. art. has: 12 formulas.

ASSOCIATION: None.

SUBMITTED: 05Oct64

ENCL: 00

SUB CODE: MA

NR REF SOV: 004

OTHER: 003

PC

Card 2/2

BUKHVALOV, A.M.

Elementary method for the disjunction of variables in equations  
with many variables. Dokl. AN SSSR 161 no.1:16-18 Mr '65.

(MIRA 18:3)

1. Submitted October 6, 1964.

BUKHVALOV, B.M.

Improving the quality of projects. Mashinostroitel' no.6:34 Je '65.  
(MIRA 18:7)

BUKHVALOV, B.N., dotsent, kandidat tekhnicheskikh nauk.

~~Power calculations of roller straightening machine drives.~~

Power calculations of roller straightening machine drives. Sbor.  
st.Ural.politekh.inst. no.48:57-63 '53. (MLRA 9:3)  
(Rolls (Iron mills))

BUKHVALOV, B.N., dotsent, kandidat tekhnicheskikh nauk.

Designing drives for wire reelers on wire-rod mills. Trudy Ural.  
politekh.inst. no.45:152-155 '53. (MLBA 9:11)  
(Rolling mills) (Wire)



SOV/137-57-11-21287

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 11, p 95 (USSR)

AUTHOR: Bukhvalov, B.N.

TITLE: Rational Methods of Hot Rolling Large Angles and Beams  
(Ratsional'nyye sposoby goryachey prokatki ugolkovykh profiley i balok bol'shogo razmera)

PERIODICAL: V sb.: Ratsionalizatsiya profiley prokata. Moscow, Profizdat, 1956, pp 185-186

ABSTRACT: Complex systems of grooving are normally employed in the rolling (R) of angle shapes. However, angles may also be produced by the R of ordinary strip with subsequent bending to angles without reduction. This is done by idler rolls mounted on the finishing stand. However, this system does not produce the sharp exterior angle required by the USSR Government Standard (GOST) now in force. Under the new Government Standard, angles will be supplied with rounded outer angles, and this will simplify grooving and the process of angle R. Large beams are R by special 6-stand mills with a total motor capacity of ~20,000 hp. When the assortment of beams is large, the frequent roll changes have a damaging effect upon

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SOV/137-57-11-21287

Rational Methods of Hot Rolling Large Angles and Beams

the output rate of the mill. The larger beams, with a wide range of flange widths, may be produced by bending the edges of general-purpose plate without reduction and the use of 2 welded longitudinal seams, symmetrically positioned. Conversion from one beam size to another may be performed by shifting the working-stand housings laterally. When shapes are bent "from rolling heat" there need be no fear of crack formation.

P.G.

Card 2/2

BUKHVALOV, B.N., dotsent, kand.tekh.nauk

Diagonal rolling of sheets. Trudy Ural.politekh.inst. no.78:38-57 '60.  
(MIRA 14:5)

(Rolling (Metalwork))

BUKHVALOV, I.B.; KIRPICHNIKOVA, Ye.S.; RYABOV, V.F.; SHCHERBAKOVA, E.G.

Different blood types in birds; based on materials collected in the steppe districts of the Virgin Territory. Vest. Mosk. un. Ser. 6; Biol., pochv. 19 no.3:51-55 My-Je '64. (MIRA 17:12)

1. Kafedra tsitologii i gistologii Moskovskogo universiteta.

L 63541-65 EWT(m)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) MJW/JD

ACCESSION NR: AP5015868

UR/0156/65/000/006/0077/0078

669-419.4 : 621.771.2

AUTHOR: Bukhvalov, O. B. ; Zasukha, P. F.

TITLE: Strain hardening of ASM and ATsK alloys and steel at different temperatures

SOURCE: Tsvetnyye metally, no. 6, 1965, 77-78

TOPIC TAGS: aluminum alloy, Armco iron, steel, bimetal, strain hardening

ABSTRACT: For the accurate determination of the dimensions of stock going into the production of bimetal bushings, the deformation resistance of antifriction alloys ASM (3.5-4.5% Si, 0.3-0.7% Mg), ATsK (2-3% Sn, 2-3% Al), Armco iron was investigated as a function of the degree of deformation and temperature. Data from these investigations are plotted in two sets of hardening curves, one for the aluminum alloys, the other for the steels. These curves are also required for determining rolling forces. Cylindrical samples were subjected to upsetting in a ton friction press with a block rate of 200 mm/sec corresponding to the conditions in the rolling of bimetal under mill conditions. Samples were heated in a closed tube furnace. It is shown that the aluminum alloys are hardened by cold deformation.

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L 635L1-65

ACCESSION NR: AP5015868

but as temperatures rise their strain hardening falls, more so in ASM than in ATsk, which contains silicon. It is also found that the deformation resistance of the steels increases somewhat in the 200-250°C temperature interval which is in agreement with other studies. The deformation resistance of 08kp steel is slightly higher as it contains twice as much carbon as Armco iron. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 005

OTHER: 000

Card *dm*  
2/2

ACC NR: AP6033617

SOURCE CODE: UR/0136/66/000/010/0068/0070

AUTHOR: Zasukha, P. P.; Bukhvalov, O. B.; Yershov, A. A.; Nikiforov, V. K.

ORG: none

TITLE: Rolling of ASM alloy-clad steel with an aluminum insert

SOURCE: Tsvetnyye metally, no. 10, 1966, 68-70

TOPIC TAGS: <sup>flat plate, sheet metal, metal</sup> aluminum alloy, <sup>metal rolling, low carbon</sup> cladding, <sup>aluminum</sup> steel, <sup>aluminum</sup> clad metal rolling/ASM alloy

ABSTRACT: The effect of antimony content in the ASM alloy (3.5—6.5% Sb, 0.3—0.7% Mg, 0.3—0.7% Fe, 0.3—0.5% Si, Al-balance) on bond strength between the alloy cladding and a low-carbon steel base has been investigated. Low-carbon steel plate was clad with pure aluminum or alloys containing up to 8% antimony. It was found that the bond strength between pure aluminum and steel reached 6.4 kg/mm<sup>2</sup>; it was reduced to 6.0 kg/mm<sup>2</sup> in the case of alloy containing 2% antimony, and 3.0 kg/mm<sup>2</sup> in alloy with 8% antimony. The steel-ASM alloy interface contained numerous brittle crystals of AlSb compound, which caused a separation of cladding. To eliminate the effect of antimony and other alloying elements on bond strength, the cladding was done with an aluminum inter-

Card 1/2

UDC: 669-419.4:621.771

ACC NR:

AP6033617

layer. In practice, the machined ASM alloy ingots are pack-rolled with A6 aluminum sheets 3 mm thick at 500—540C in eight passes with reduction from 136 to 8 mm, then cold rolled to the required thickness. The cold-rolled sheets are then used as cladding material for steel. Orig. art. has: 2 figures.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 004

Card 2/2



BUKHVALOV, V. (g.Gor'kyi)

SN-200 voltage stabilizer for television power supply. Radio  
no.4:52 Ap '61. (MIRA 14:7)  
(Television) (Electric power supply to apparatus)

BUKHVALOVA, K. I.

GORSHKOV, A.A., professor, redaktor; BUKHVALOVA, K.I., redaktor;  
SHCHEPTEV, V.M., tekhnicheskiy redaktor.

[Founding industry] Liteinoe proizvodstvo. Sverdlovsk, Gos.  
nauchno-tekhn. izd-vo mashinostroit. lit-ry [Sverdlovskoe  
otd-nie] 1947. 52 p. (MLRA 7:8)

1. Vsesoyuznoye nauchno-tekhnicheskoye obshchestvo mashino-  
stroiteley. Ural'skoye otdeleniye. 2. Sverdlovskoye otdeleniye  
Mashgiza.  
(Founding)

ALOV. A.A.; TOKAREVA, V.A., redaktor; BUKHVALOVA, K.I., redaktor.

[Electrodes for arc welding and weld deposition] Elektrody dlia dugo-  
voi svarki i naplavki. Sverdlovsk, Gos. nauchno-tekhn. izd-vo mashino-  
stroit. lit-ry [Sverdlovskoe otd-nie] 1947. 86 p. (MLRA 7:7)  
(Welding)

YEREMIN, A.N., kandidat tekhnicheskikh nauk; GORELOV, V.M., inzhener, retsenzent; ~~BUKHVALOVA, K.I.~~, inzhener, redaktor; DUGINA, N.A., tekhnicheskii redaktor

[Physical characteristics of steel under cutting] Fizicheskaya sushchnost' iavlenii pri rezanii stalei. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1951. 225 p. [Microfilm]  
(Metal cutting) (Steel) (MIRA 9:9)

YASHCHERITSYN, P.I.; LOSKUTOV, V.V., kandidat tekhnicheskikh nauk,  
retsenzent; BUKHVALOVA, K.I., inzhener, redaktor; DUGINA, N.A.,  
tekhnicheskii redaktor

[High-speed grinding] Skorostnoe shlifovanie. Moskva, Gos.  
nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1953. 110 p.  
[Microfilm] (MLRA 7:10)  
(Grinding and polishing)

MIROSHNICHENKO, Boris Yakovlevich; BUKHVALOVA, K.I., inzh., red.vypuska;  
KUZNETSOV, N.S., inzh., red.; GAVRILOV, P.G., kand.tekhn.nauk, red.;  
SOMOVA, T.M., inzh., red.; MARCHENKOV, I.A., tekhn.red.

[Layout precision in the manufacture of machinery] Tochnost'  
mashinostroitel'noi razmetki. Sverdlovsk, Gos.nauchno-tekhn.izd-vo  
mashinostroit.lit-ry, 1960. 86 p. (Biblioteka razmetchika, no.4).

(MIRA 14:1)

(Laying out--Machine-shop practice)

BOYARSKIY, Lazar' Todrisovich; KORSHIKOV, Nikolay Petrovich; VERBOVSKIY,  
I.I., inzh., retsenzent; SHKURO, V.M., inzh., retsenzent, red.;  
BUKHVALOVA, K.I., inzh., red.; DUGINA, N.A., tekhn.red.

[Technology of the manufacture of forging and pressing machinery]  
Tekhnologiya kuznechno-pressovogo mashinostroeniya. Moskva,  
Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 432 p.  
(MIRA 14:4)

(Forging machinery)

BUKHVINER, V.Ye.

Design of a discrete synchronization system. Elektrosvaz' 16 no.6:  
3-9 Je '62. (MIRA 15:6)

(Radio) (Information theory)



9,2580

38199 -  
S/106/62/000/006/001/003  
A055/A101

AUTHOR: Bukhviner, V.Ye.

TITLE: Calculation of a discrete synchronization system

PERIODICAL: Elektrosvyaz', no. 6, 1962, 3 - 9

TEXT: A discrete synchronization system (for two independent oscillators) is described, where the averaging device contains a reversible counter. The author considers the system with indirect control of the phase of oscillations, shown in Figure 1, where the received discrete signals, after passing through the forming device (1), reach the phase discriminator (2), into which are also fed the periodic pulses from the controlled scaler (5), a highly stable h-f sinusoidal voltage being supplied to this scaler by the quartz oscillator (4); through the controlling device (6), the error signal from the phase discriminator changes the operating conditions of the controlled scaler; the system is completed by the averaging device (3) which determines essentially the parameters of the system. The averaging device suggested by the author (see Fig. 2) contains a binary counter with a controlled direction of counting ("sum" or "dif-

Card 1/3 2

Calculation of a discrete synchronization system

S/106/62/000/006/001/003  
A055/A101

ference"). To the phase discriminator (1) are applied the narrow pulses (corresponding to the fronts of the received signals) and the rectangular voltage (with a frequency equal to twice the keying frequency) from the controlled scaler output stage, this voltage being applied to the two inputs (in opposition) of the phase discriminator: the "positive" and the "negative" input. The amplitude-summed signals (whose time-diagrams are reproduced in the article) put into operation the device controlling the counting direction (2), and this device determines the reversal of the counter (3) for "sum" or "difference" operation. The author deduces a set of formulae giving the parameters of the synchronization system described by him, and reproduces finally a numerical example of the calculation of these parameters. The Soviet personalities mentioned in the article are: P.A. Kotov, N.I. Chistyakov, V.M. Sidorov, V.S. Mel'nikov and F.V. Mayorov. There are 3 figures. 4

SUBMITTED: March 10, 1961

Card 2/2 2

9.6000  
6.7100

hh612  
S/106/63/000/001/001/007  
A055/A126

AUTHOR: Bukhviner, V.Ye.

TITLE: Experimental investigation of the interference immunity of synchronization systems

PERIODICAL: Elektrosvyaz', no. 1, 1963, 3 - 12

TEXT: An experimental method for comparing the interference immunity of discrete synchronization systems with different averaging devices is described. The circuit used for this experimental investigation is shown in Fig. 1. This circuit permits to vary all the parameters of the synchronization system linked by the inequality:

$$K_f < \frac{1}{nN} \frac{K_{\mu}}{K_6} ; \quad (1)$$

where n is the "scaling" coefficient of the controlled scaler; N is the capacity of the discrete storage device (number of pulses);  $K_f$  is the coefficient of the permissible relative instability of the keying frequencies of the synchronized devices;  $K_{\mu}$  is a coefficient taking into account the random character of keying

Card 1/3

Experimental investigation of the interference ....

S/106/63/000/001/001/007

A055/A126

(variable density of keying) ( $K_k$  varies between 0 and 1);  $K_g$  is a coefficient taking into account the random character of the variation of the direction of the time-distortions of the input signal fronts ( $K_g$  varies between 1 and 2). The synchronized reference system consists of the regenerating device 3 to which are simultaneously applied the signals from the generator 1, distorted in the time-distortion simulator 2, and the regenerating pulses cophasely formed in the same generator. The distorted signals are also applied to the second regenerator 4, but the regenerating pulses, in this case, come from the output of the investigated synchronization system 10. Devices 5 and 6 are error-counters, and 9 is a scaler. 7 and 8 are devices recording the maximum values of time-distortion. System 10 (with discrete phase tuning and discrete averaging) contains the master-oscillator 11, the controlled scaler 12, the phase discriminator 13 and the averaging device 14.  $N$  and  $n$  were varied in this system. Three variants of the averaging device are described. Calculated and experimental data on the permissible frequency range of discrete synchronization systems are compared. The maximum permissible value of  $N$  is determined. The necessity of the automatic blocking of averaging devices is shown; this automatic blocking permits to widen considerably the frequency range of the synchronization systems. The advantage of

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Experimental investigation of the interference ...

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using systems with automatic phase tuning in radio channels is stressed. There are 5 figures and 2 tables.

SUBMITTED: May 15, 1962

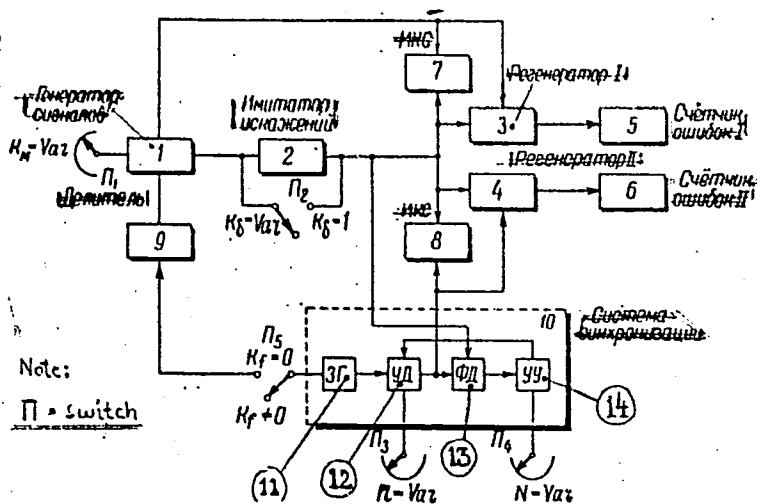


Figure 1

Card 3/3

BUKHVINER, V.Ye.

Synchronization system with a constant frequency trim. Elektrosviaz'  
18 no.1:9-16 Ja '64. (MIRA 17:4)

ACCESSION NR: AP4037400

S/0106/64/000/005/0053/0063

AUTHOR: Bukhviner, V. Ye.

TITLE: Statistical-characteristic analyzer for radiotelegraph channels

SOURCE: Elektrosvyaz', no. 5, 1964, 53-63

TOPIC TAGS: radio, radiotelegraphy, telegraphy, radiotelegraph channel, channel characteristic analyzer

ABSTRACT: Some ways of developing a telegraph analyzer of channel reliability are discussed; a laboratory-model portable transistorized analyzer is described. The device analyzes a radiotelegraph channel by the probability of errors, their distribution, error symmetry and correlation; it is essentially a transmitting-receiving set of synchronous measuring equipment; its block diagram is shown in Enclosure 1. The analyzer, intended for research on and aligning radiotelegraph channels, consists of three channels (one principal and two auxiliary) and has a

Cord 1/3

ACCESSION NR: AP4037400

discrete synchronization system with an indirect automatic phase control of its quartz oscillator. A master oscillator ensures signaling speeds of 1,200, 600, 300, 100, and 50 bauds. An a-c power supply at 50 va is required. Orig. art. has: 11 figures and 9 formulas.

ASSOCIATION: none

SUBMITTED: 29Mar63

DATE ACQ: 09Jun64

ENCL: 01

SUB CODE: EC

NO REF SOV: 006

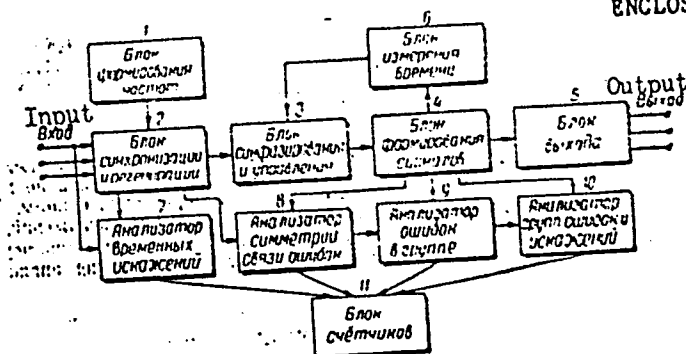
OTHER: 000

Cord 2/3



ACCESSION NR: AP4037400

ENCLOSURE: 1



Statistical-characteristic analyzer for radiotelegraph channels

- 1 - frequency forming unit; 2 - sync and regeneration unit;
- 3 - phasing and control unit; 4 - signal shaper; 5 - output unit;
- 6 - time measuring unit; 7 - time distortion analyzer;
- 8 - error symmetry and correlation analyzer; 9 - intragroup-error analyzer; 10 - error-group and distortion analyzer;
- 11 - counter unit.

Card 3/3

L 25914-66 EWT(d)/FSS-2

ACC NR: AP6016668

SOURCE CODE: UR/0106/65/000/007/0010/0016

AUTHOR: Bukhviner, V. Ye.

ORG: none

TITLE: Automatic control of the quality of radiotelegraph communications

SOURCE: Elektrosvyaz', no. 7, 1965, 10-16

TOPIC TAGS: automatic control, radio telegraphy

ABSTRACT: It is shown that the quality of radiocommunications can be automatically controlled with the aid of the amplitude of time distortions so that not more than 10 of each 100,000 received code combinations may be erroneously recorded, thus adhering to the recommendations of the CCIR concerning radio lines. The probability density of the distribution of time distortions in trunk radio channels can be approximated with a sufficient accuracy by a power law whose parameters are determined by the quality of the communications. The measurements of time distortions for the purpose of automatic control of the quality of communications should be performed with respect to the position of regenerating pulses, which is determined by the synchronization system of the concerned communication channel. The efficiency of the communication channel, defined as the ratio of time of operation with a

Cord 1/2

UDC: 621.396.235.4.004

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ACC NR: AP6016668

D

high quality to the total time of operation, may be regarded as the operational parameter of communication quality. In this connection, the author formulates the requirements that must be met by a communication channel before it can be considered efficient. Continuous registration of the channel's efficiency can be accomplished with the aid of a simple circuit in which the recorder input receives pulses from a metering device. These pulses proceed to a distortion counter and thence to a storage device regulated by a timer. Orig. art. has: 4 figures, 5 formulas, and 2 tables. [JPRS]

SUB CODE: 17, 09 / SUBM DATE: 29Aug64 / ORIG REF: 007

Card 2/2 BLG

L 8786-66 EWT(d)/FSS-2

ACC NR: AP5028138

SOURCE CODE: UR/0106/65/000/011/0017/0023

AUTHOR: Bukhviner, V. Ye. 25  
B

ORG: none

TITLE: Error-correcting coding in a simplex radio channel using a chain code

SOURCE: Elektrosvyaz', no. 11, 1965, 17-23

TOPIC TAGS: radio communication, radio telegraphy

ABSTRACT: The principal shortcoming of recurrent and group codes is seen in their inability to restore information on the basis of check symbols only; when the working channel fails, the information arrived via the check channel is useless. A continuous, "chain" coding system is suggested in which working-channel relative-coded symbols are transmitted as check symbols. A theoretical analysis of the new coding system brings about these conclusions: (1) Noise rejection of

Card 1/2

UDC: 621:396.14:621.398.623

Z